

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 2, 2015

TO: Steven Stokes, Technical Director  
FROM: Dermot Winters, WIPP Cognizant Engineer  
SUBJECT: Waste Isolation Pilot Plant (WIPP) Activity Report for September 2015

**DNFSB Staff Activity:** S. Sircar, M. Dunlevy, P. Meyer, and D. Winters were onsite September 1-2 for site orientation in support of review of the WIPP Documented Safety Analysis Revision 5. R. Quirk was onsite September 14-18 performing site representative oversight duties. The Board's staff has averaged 3.0 man-weeks of oversight per month for the first 9 months of 2015.

**Annual Emergency Preparedness (EP) Exercise:** On September 16, WIPP held its annual full-scale exercise to demonstrate and evaluate their overall capability to recognize, respond, contain, and mitigate an emergency situation that may occur. Board staff member, R. Quirk, observed the exercise at the event scene and in the emergency operations center (EOC). The staff member judged the overall performance of the annual EP exercise to be adequate, although the EOC personnel over-characterized the drill accident event as a general emergency. The contractor plans to issue their report within the required 30 working days.

**Potentially Inadequate Safety Analysis (PISA):** The Waste Handling Building (WHB) Fire Suppression System (FSS) is operating in a degraded mode. This resulted in a PISA declaration, followed by a positive Unreviewed Safety Question determination (USQ) on September 18. An additional PISA was declared on September 14 regarding the lack of the required one degree floor slope in the remote-handling (RH) bay which is credited to direct spilled fuel away from the contact-handling (CH) bay. Absorbent socks have been placed along the roll-up and personnel doors between the bays to preclude entry of liquids into the CH bay. Members of the staff are tracking progress of both issues.

**Consolidated Evaluation of the Safety of the Situation (ESS):** In April 2015 DOE committed to consolidate nine ESSs into a simplified consolidated ESS document to reduce the likelihood of Technical Safety Requirement violations. The Board's staff reviewed the draft document and transmitted an agenda to support discussions in August. DOE submitted written responses to the agenda and members of the staff are evaluating the responses.

**Ventilation System Upgrades:** Progress continues on the installation of planned site ventilation system upgrades. All interim ventilation system (IVS) component repairs have been completed by the vendor with components scheduled to arrive back on site in October. Construction is complete on the concrete foundation pads. The supplemental ventilation system (SVS) fan is mechanically installed in the underground with electrical wiring planned for completion in October. The two systems are projected to be operable in early 2016. The IVS will upgrade the filtration capacity from 60 kcfm to 114 kcfm and the SVS will provide 130 kcfm of ventilation flow. Of note, once the SVS system becomes operable, emergency underground egress through the salt shaft will no longer be possible as the SVS exhausts out this shaft. The permanent ventilation system critical decision-1 conceptual design point is scheduled for October 30. Members of the staff are evaluating all three systems.